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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/674,642  | 09/30/2003  | Frank Eliot Levine   | AUS920030484US1     | 4690             |
| 35525   | 7590        | 08/23/2007           | EXAMINER            |                  |
| IBM CORP (YA)<br>C/O YEE & ASSOCIATES PC<br>P.O. BOX 802333<br>DALLAS, TX 75380 |             |                      | CHOU, ANDREW Y      |                  |
|   |             |                      | ART UNIT            | PAPER NUMBER     |
|   |             |                      | 2192                |                  |
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|   |             |                      | 08/23/2007          | PAPER            |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

|                              |                 |               |
|------------------------------|-----------------|---------------|
| <b>Office Action Summary</b> | Application No. | Applicant(s)  |
|                              | 10/674,642      | LEVINE ET AL. |
|                              | Examiner        | Art Unit      |
|                              | Andrew Y. Chou  | 2192          |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 13 May 2007.  
 2a) This action is FINAL.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-4,6-13,15-21 and 23-26 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-4,6-13,15-21 and 23-26 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) Notice of References Cited (PTO-892)  
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3) Information Disclosure Statement(s) (PTO/SB/08)  
 Paper No(s)/Mail Date 313012007

4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date. \_\_\_\_\_  
 5) Notice of Informal Patent Application  
 6) Other: \_\_\_\_\_

### **DETAILED ACTION**

1. This Office Action is response to Applicant's amendment dated 05/13/2007. Claims 1, 10, and 18 were amended. Claims 5, 14, and 22 were cancelled. Claim 26 was added.
2. Claims 1-4, 6-13, 15-21, and 23-26 remain pending in the application.

#### ***Response to Arguments***

3. Applicant's arguments with respect to claims rejection have been considered but are moot in view of the new grounds of rejection to now amended claims. See Pardo et al. US 5,754,839 B1 (hereinafter Pardo) made of record below.

#### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claim 26 is rejected under 35 U.S.C. 102(b) as being anticipated by Pardo et al. US 5,654,839 (hereinafter Pardo).

**Claim 26:**

A method in a data processing system for monitoring the execution of a compiled program, the method comprising:

receiving a bundle, wherein the bundle comprises a plurality of instructions and wherein the bundle is a multiple of 128 bits (see for example column 5, lines 51-66);

identifying an instruction out of the plurality of instructions in the bundle (see for example column 5, lines 51-66);

determining whether the instruction has an associated performance indicator (see for example column 5, lines 51-66) ;

responsive to a determination that a performance indicator is associated with the instruction, transmitting a signal to a performance monitor (see for example column 6, lines 1-14); and

processing the instruction (see for example column 6, lines 1-14).

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-4, 6-13, 15-21, and 23-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kaneshiro et al. US 5,950,003 (hereinafter Kaneshiro) in view of Pardo et al. US 5,754, 839 (hereinafter Pardo).

**Claim 1:**

Kaneshiro discloses a method in a data processing system for monitoring the execution a compiled program having a set of groupings, the method comprising:

selecting a grouping from the set of groupings (see for example column 8, lines 7-17) for the compiled program to form a selected grouping (see for example );  
associating a set of indicators with instructions in the selected grouping within the set of groupings, wherein the set of indicators provides data on the execution of the instructions by a processor executing the instructions (see for example column 13, lines 15-43); and

collecting the data (see for example column 7, line 65- column 8, line 7).

However, Kaneshiro does not disclose a method in a data processing system for monitoring the execution a compiled program having a set of groupings comprising:

executing the compiled program, wherein data is generated in response to a determination that an instruction of the instructions is associated with an indicator in the set of indicators, the data comprising at least one of a number of times each instruction on the selected grouping has been executed and a number of visits to the selected grouping.

Pardo in the same analogous art of profiling in data processing systems discloses a method in a data processing system for monitoring the execution a compiled program having a set of groupings comprising:

executing the compiled program, wherein data is generated in response to a determination that an instruction of the instructions is associated with an indicator in the

set of indicators, the data comprising at least one of a number of times each instruction on the selected grouping has been executed and a number of visits to the selected grouping (see for example column 2, lines 7-29, and 44-45). Therefore at the time of the invention it would have been obvious to a person of ordinary skill in the art to utilize the feature disclosed in Pardo to enhance the profiling method taught in Kaneshiro (see for example Pardo, column 1, lines 60-63).

**Claim 2:**

Kaneshiro further discloses the method of claim 1 further comprising:

repeating the selecting, associating, executing, and collecting steps for all groupings in the set of groupings (see for example FIG. 4, and related text).

**Claim 3:**

Kaneshiro further discloses the method of claim 2 further comprising:

performing the repeating step each time a timer expires (see for example column 8, TABLE 1, "start procedure", "end procedure").

**Claim 4:**

Kaneshiro further discloses the method of claim 1 further comprising:

responsive to identifying an instruction in an instruction cache for execution, determining whether an indicator from the set of indicators is associated with the instruction (see for example column 13, lines 15-43); and

counting each event associated with execution of the instruction if the indicator is associated with the instruction from the data (see for example column 13, lines 25-39)

**Claim 5: (Cancelled)**

**Claim 6:**

Kaneshiro further discloses the method of claim 1, wherein the set of indicators are located in a shadow memory (see for example column 8, TABLE 1).

**Claim 7:**

Kaneshiro further discloses the method of claim 1, wherein the data provides an identification of a usage of routines in the compiled program (see for example FIG. 11, S24, and related text).

**Claim 8:**

Kaneshiro further discloses the method of claim 1, wherein the method is located a scanning daemon (see for example FIG. 4, and related text).

**Claim 9:**

Kaneshiro further discloses the method of claim 1, wherein the grouping is selected from one of a page, a subroutine, or a module a program (see for example column 8, TABLE 1, "start profile").

**Claims 10-13:**

Claims 10-13 are data processing system versions of the claimed method steps discussed in claims 1-4 above. Thus, accordingly these claims would also be anticipated by Kaneshiro and Pardo.

**Claim 14: (cancelled)**

**Claims 15-17:**

Claims 15-17 are data processing system versions of the claimed method steps discussed in claims 6-9 above. Thus, accordingly these claims would also be anticipated by Kaneshiro and Pardo.

**Claim 18-21:**

Claims 18-21 are computer program products of the claimed method steps discussed in claims 1-4 above. Thus, accordingly these claims would also be anticipated by Kaneshiro and Pardo.

**Claim 22: (cancelled)**

**Claims 23-25:**

Claims 23-25 are computer program products of the claimed method steps discussed in claims 6-8 above. Thus, accordingly these claims would also be anticipated by Kaneshiro and Pardo.

***Conclusion***

8. Applicant's amendments with respect to claims rejection have been considered but are moot in view of the new grounds of rejection to now amended claims necessitated by amendment. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry of a general nature of relating to the status of this application or proceeding should be directed to the TC 2100 Group receptionist whose telephone number is (571) 272 2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll free).

AYC



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SUPERVISORY PATENT EXAMINER